

REMARKS

Reconsideration of the present application is respectfully requested. Claims 1-27 and 29-51 were previously presented and no amendments have been made to the claims. Therefore, claims 1-27 and 29-51 are currently pending. Claims 1, 41, 43, and 45 are in independent form.

In the Office Action mailed April 14, 2006, the Examiner rejected claims 1-27 and 29-51 under 35 U. S. C. 102(e) as anticipated by, or, in the alternative, under 35 U.S.C. §103(a) as obvious over U.S. Patent No. 6,656,601 to Kawachi et al. (hereinafter, Kawachi), U.S. Patent No. 6,399,191 to Wong et al. (hereinafter, Wong), or U.S. Patent No. 5,744,250 to Lee et al. (hereinafter, Lee).

In support of these rejections, the Examiner states that Applicants' argument that Kawachi, Wong, and Lee fail to disclose melt indices above 100 is not persuasive because "any macromolecular material which is molten at 190 degrees centigrade inherently has applicants melt index provided the correct load is chosen. As applicants claims are not limited to load, applicants newly added recitation in claim 1 re melt index has little or no meaning as a limitation." Office Action, p. 5, ll. 13-17. However, as discussed in detail below, Applicants assert that the term "melt index" specifically implies a test load of 2.16 kg and because Kawachi, Wong, and Lee do not disclose grafted copolymers with melt indices above 100, the rejection of claims 1-27 and 29-51 under U.S.C. §102/103 as being anticipated by or obvious over Kawachi, Lee, and Wong is in error.

Independent claims 1, 41, 43, and 45 each recite a grafted polyolefin having "a melt index ranging from above 100 to about 5,000 g/10 min at 190°C." *Hawley's Condensed Chemical Dictionary* defines "melt index" as "[t]he viscosity of a thermoplastic polymer at a specified temperature and pressure Specifically, the number of grams of such a polymer that can be forced through a 0.0825-inch orifice in 10 minutes at 190°C by a pressure of 2160 grams." *Hawley's*, p. 707, col. 2 (emphasis added). A copy of the relevant portion of *Hawley's* is attached as EXHIBIT A. According to the definition provided in *Hawley's*, the term "melt index" specifically denotes a property of a polymer tested at a temperature of 190°C and a load of 2.16 kg.

Further, according to ASTM D1238-04c Standard Test Method for Melt Flow Rates of Thermoplastics by Extrusion Plastomer, “It has become customary to refer to the flow rate of polyethylene as ‘melt index’ when obtained under Condition 190[°]C/2.16 [kg].” ASTM D1238-04c, p. 280, Note 27. A copy of ASTM D1238-04c is attached as EXHIBIT B. The ASTM test description and the definition provided in *Hawley’s* make it clear that “melt index” is always determined at a temperature of 190°C and under a load of 2.16 kg.

In view of the foregoing, Applicants assert that the use of the term “melt index” in independent claims 1, 41, 43 and 45 implies, by definition, that the values claimed are determined at a temperature of 190°C under a load of 2.16 kg. Further, the Examiner’s assertion that “melt index has little or no meaning as a limitation” appears to be without merit because, as evidenced by the definition in *Hawley’s* and the test description of ASTM D1238-04c, the term “melt index” has a specific and definite meaning to one skilled in the art.

Applicants reiterate that Kawachi, Lee, and Wong do not teach or suggest an adhesive composition that employs a grafted polyolefin having the claimed melt index ranging from about 100 to about 5,000 g/10min. Because the conditions used to determine the melt index (MI) or melt flow rate (MFR) of the grafted polyolefins of Kawachi, Lee, and Wong are the same as those used by Applicants, the values disclosed for MI or MFR in the cited prior art references can be directly compared to the Applicants’ claimed range. Table 1, below, compares the ranges of melt indices disclosed in Kawachi, Lee, and Wong with the range described and claimed in the present Application.

Table 1
Comparison of Prior Art and Claimed Melt Index Ranges

Source	Reference	Melt Index	Temperature (°C)	Load (kg)
Kawachi	Col. 3, ll. 42-Col. 4, ll. 3; Col. 5, ll. 55-66	0.1 to 100	190	2.16
Lee	Col. 2, ll. 59-67; Tables 1 and 2	3 to 30	190	2.16
Wong	Col. 6, ll. 31-34; Col. 9, ll. 16-34	0.1 to 50	190	2.16
Application	Col. 10, ll. 10-15	above 100 to 5,000	190	2.16

As shown in Table 1, Kawachi, Lee, and Wong do not teach or suggest employing a grafted polyolefin having a melt index ranging from above 100 to 5,000 g/10 min, as recited in the claims. Moreover, there is nothing in the teachings of these prior art patents which would suggest to those of ordinary skill in the art to employ such polymers with a melt index above 100 g/10 min.

In view of the foregoing, Applicants submit the term "melt index" does, in fact, imply a specific load. Further, Applicants reassert that the melt indices disclosed in Kawachi, Lee, and Wong are outside Applicants' claimed range. Therefore, claims 1-27 and 29-51 are neither anticipated by nor obvious over the prior art, including Kawachi, Wong, and Lee.

In the Office Action, the Examiner rejected claims 1-27 and 29-51 under 35 U.S.C. §102(b) as being unpatentable over U.S. Patent 5,763,516 to Godfrey et al. (hereinafter, Godfrey). To support this rejection, the Examiner states, "With re to materials such as wax which the prior art discloses but which may not be expressly recited in the claims, the term, 'consisting essentially of' only excludes those materials which materially affect the novel and basic characteristics of a composition and it is the applicants' burden to prove that such characteristics are changed by the presence of additional materials recited in a prior art product." Office Action, p. 6, ll. 1-6. Applicants assert that, in fact, the addition of wax does materially affect the novel and basic

characteristics of the inventive composition and that claims 1-27 and 29-51 are not anticipated by Godfrey.

Independent claims 1, 41, 43, and 45 each recite an adhesive composition “consisting essentially of” at least one copolymer comprising repeating units from ethylene and at least one alpha-olefin, at least one tackifier resin, and at least one grafted polyolefin. The adhesive composition taught in Godfrey requires between 5 and 20 percent of a high melting, low-viscosity wax. See Godfrey, col. 7, ll. 10-13. However, Applicants submit that because the addition of a wax as taught by Godfrey materially affects the novel and basic characteristics of Applicants’ adhesive composition, the claim language “consisting essentially of” distinguishes the present composition from the adhesive disclosed by Godfrey.

Applicants have enclosed herewith a Declaration Pursuant to 37 C.F.R. §1.132. The Declaration provides factual and opinion evidence that the addition of high-viscosity, low-melting waxes as taught by Godfrey materially affects the novel and basic properties of the adhesive composition claimed in the present Application. In summary, the Declaration (1) describes the making of several adhesive compositions as described and claimed in the Application with the addition of 5, 10, 15, and 20 weight percent of a high-viscosity, low-melting wax as required by Godfrey, (2) tests the onset of fiber tear, the peel adhesion failure temperature (PAFT), and the shear adhesion failure temperature (SAFT) of each wax-containing adhesive composition, (3) compares of the onset of fiber tear, PAFT, and SAFT of the wax-containing adhesives to the control adhesive (the Inventive Adhesive Composition #4 described in the Examples Section of the Application), and (4) explains that the addition of the wax according to Godfrey materially impacts the basic and novel properties of the adhesive composition described and claimed in the Application.

As evidenced by Applicants’ specification and claims, onset of fiber tear, PAFT, and SAFT are basic and novel characteristics of the inventive adhesive composition. In the Examples section of the Application, Applicants test the performance of the inventive adhesive compositions by testing onset of fiber tear, PAFT, and SAFT. Applicants then compare the results of the performance tests of the inventive compositions to the onset of fiber tear, PAFT, and SAFT of other conventional

adhesives. Because the onset of fiber tear, PAFT, and SAFT were used as a basis of comparison among adhesive compositions, they are basic characteristics of the inventive adhesive. Further, because onset of fiber tear, PAFT, and SAFT were used to differentiate the inventive adhesive from the prior art, they are novel characteristics of the inventive adhesive. In addition, the Background section of the Application explains that the adhesive composition of the present invention has improved properties over prior art adhesives, including improved values for onset of fiber tear, SAFT, and PAFT. This further evidences the fact that Applicants consider onset of fiber tear, SAFT, and PAFT to be both basic and novel characteristics of the inventive adhesive.

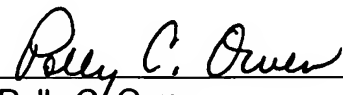
As outlined in the enclosed Declaration under 37 C.F.R. §1.132, the addition of a high-viscosity, low-melting wax as taught in Godfrey significantly increases the onset of fiber tear and significantly decreases the PAFT and SAFT of the adhesive composition described and claimed in the Application. The elevated onset of fiber tear and depressed PAFT and SAFT indicate poorer adhesion at low and high temperatures, respectively. Because the addition of wax adversely affects the onset of fiber tear, SAFT, and PAFT of inventive adhesive composition, wax materially affects the basic and novel properties of the adhesive composition described and claimed in the Application. Therefore, Applicants assert that the “consisting essentially of” language of independent claims 1, 41, 43, and 45 differentiates Applicants’ claimed adhesive from the adhesive taught in Godfrey.

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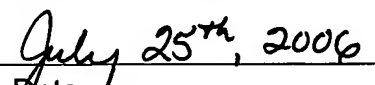
In view of the foregoing, Applicants submit that claims 1-27 and 29-51 are patentable over the prior art references of record.

Applicants respectfully request that a timely Notice of Allowance be issued in this case. Should the Examiner have any questions, please contact the undersigned at (423) 229-6204.

Respectfully submitted,


Polly C. Owen

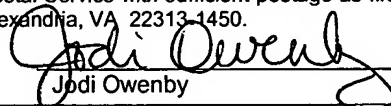
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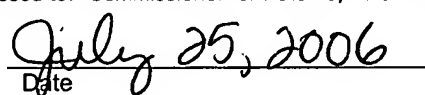

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CERTIFICATE OF MAILING UNDER 37 CFR 1.8(a)

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.


Jodi Owenby


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